

KERAMIC STUDIO

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SYRACUSE NEW YORK

September 1904

THE "ALLENDALE ARTS AND CRAFTS"



WE are in receipt of a charming little blue print booklet on the above subject, printed by "Old Sol," every now and then at the Allendale farm. "Old Sol" is assisted by the boys who are taught all sorts of crafts from photography to the working of wood, metal and the developing of useful Christian men out of boys who otherwise might have hard work to be other than flotsam and jetsam of the city. We append some extracts from "The Blue Print" which will explain the Allendale Farm and we hope to enlist the sympathetic aid of those who are interested in the saving of boys and the future manhood of the country.

"The Allendale Association,"

L. Everett Thompson, Sec.,
1007 Tacoma Building, Chicago, Ill.

Director, EDW. L. BRADLEY,
Allendale Farm,
Lake Villa, Ill.

"The men and women who are lifting the world upward and onward are those who encourage more than they criticize."—*Elizabeth Harrison.*

Allendale Farm is a community of boys, *not* a reformatory—neither is it a charitable institution, in the general acceptance of that term. The work is principally for the benefit of self respecting boys who need our help.

The community is now divided into five groups or families of from eight to fifteen boys. Each family has its Cottage Home presided over by a mother or a father who has in charge the home life of the boys—the community is organized as a junior municipality.

We need only 1,500 friends, children and grown-ups who will contribute \$500 a year to guarantee our running expenses. Allendale is dependent for its support upon the free will offerings of those who believe that "an ounce of preventive is worth a pound of cure."

"It is hard to feel at home with people who never make mistakes."

Allendale is not an institution. It is the paternal home of the homeless and neglected child who is received into sonship—not viewed as "a case."

\$900.00 is needed for water tower, tank and power.

The doctrine of total depravity will have much to account for in the day of judgment. We know that the child is good if he has a chance—an environment of goodness. Children long for something to do, and they love right doing far more than they love wrong doing.—*F. W. Parker.*

There are great possibilities for work in the various crafts at Allendale; such as simple bookbinding, leather carving and pottery, and we hope, in time, to open up work along those lines, this year the boys have worked only in wood and sheet metal—the following is a list of articles made and sold by our boys, write for price list:

"Oak and copper sconces, brass and copper candlesticks, pin trays, ash trays, card receivers, envelope and letter holders, lamp shades and decorative salvers."

A correspondent writes, "There are acres and acres of pottery and porcelain at the St. Louis Exposition—and some of the best is the work of women potters."

Beginning with the November issue or the December at the latest we will begin a series of illustrated articles on the pottery and porcelain at St. Louis, both native and foreign, which we hope to make not only interesting and covering well the entire field of artistic ceramics at St. Louis, but instructive and inspiring as well and especially to our women workers. The list of women potters is growing and adding lustre daily to ceramic art—Miss McLaughlin, Mrs. Frackleton, Mrs. Ireland, Miss Perkins, Mrs. Poillon, Miss Perry, Mrs. Robineau, are names that make no mean list for an art, young in America, and the prominence that some of these names are gaining, not only at home but abroad, should be a most exhilarating knowledge for the thousands of women enthusiastically and sincerely working in ceramics.

Many china decorators have felt somewhat shy of taking up a course in design such as the one by Mr. Hugo Froehlich just finished in *KERAMIC STUDIO*, under the plea that, while they appreciate the value and need of such a course, they can not afford to put so much time on work not immediately applicable to the china itself. The article on the Trillium by Mrs. Robineau in this number will remove this objection by showing how each problem may be worked out and immediately utilized in a design for china. She finds that there is not a single problem, after the general principles of spacing are mastered, which may not be applied directly to the work in hand.

STUDIO NOTES

Mrs. S. V. Culp has just returned home from a visit to the World's Fair and the East and during her trip visited all the prominent studios and brought back with her renewed enthusiasm for the work in china painting as well as some fine specimens of the art.

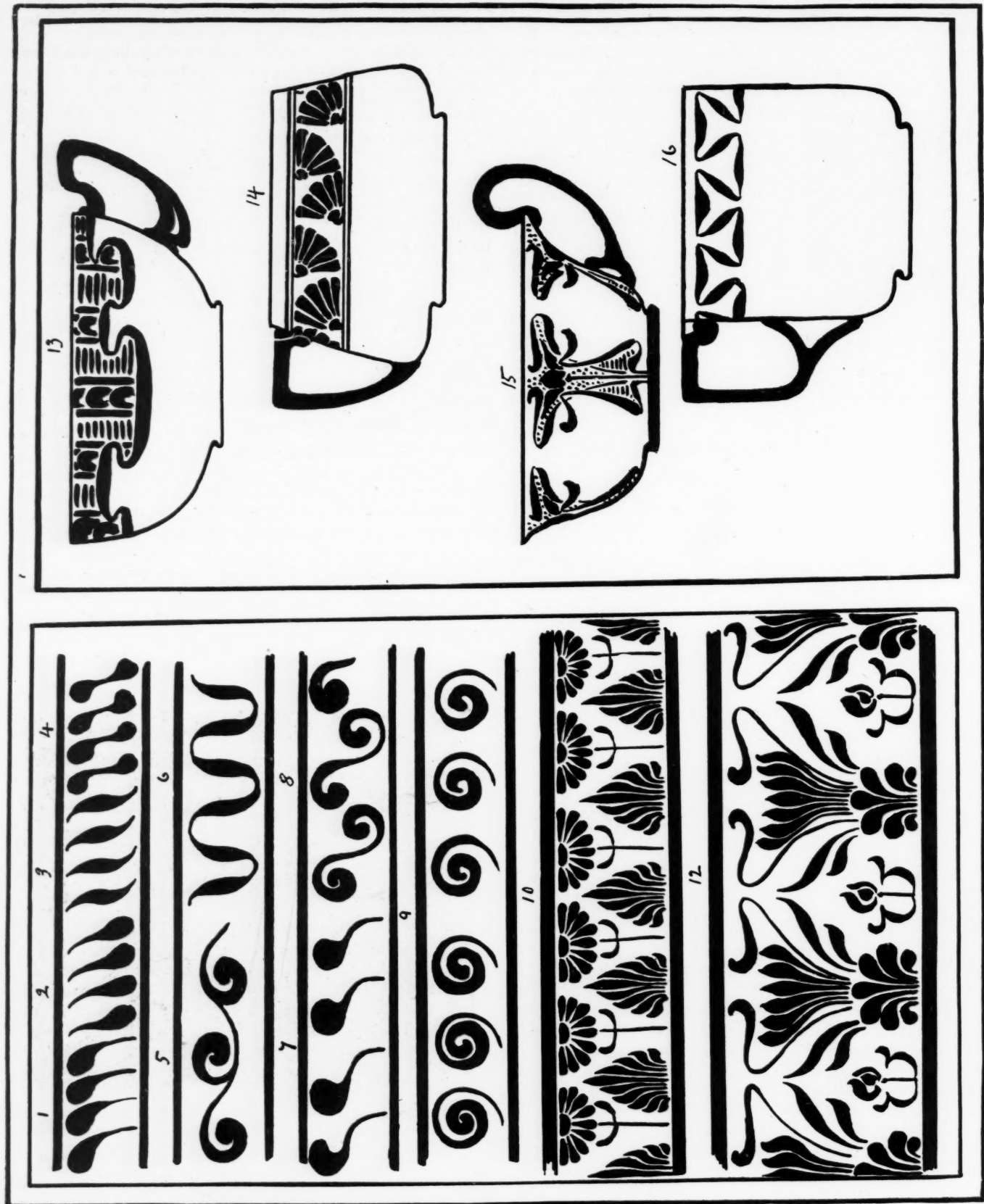
BRUSH WORK

(CONTINUED)

W. P. Jervis and F. H. Rhead

LESSON 2.

THIS lesson deals with curved strokes, giving examples of simple designs in which curved strokes are used. For figures 1 to 4 observe the same directions as given for the same numbers on sheet 1. Figures 5, 6, 7, 8 and 9 look a little more formidable, but by this time the student will have acquired a certain dexterity with the brush and with a little practice they can easily be made. Practice the borders until you can do them swiftly and of an uniform size. The strokes are done with what is more a matter of "feel" than anything else, when the shape required is perfectly understood, and the knowledge that a shape is large and wide makes the brush go down on the paper as a matter of course, whilst only the point is being used for fine lines. Figure 6 is excellent practice both for making each form separately and for making a continuous border as long as there is any color in the brush. Figures 10 and 12 are lessons in making forms composed. (Figures shown on next page.)



NATIONAL LEAGUE OF MINERAL PAINTERS

The study course presented to the Board by Miss Perry was unanimously accepted. All, who are giving this matter serious attention, believe it to be another step forward. We moved Miss Perry a vote of thanks.

In the effort to explain all details, to simplify and condense matters, so that no time should be lost, to cover all official needs, in changing offices to the West, one mistake of importance was made. Seven, instead of six, members were provided for the Advisory Board. Mrs. Perley of San Francisco, Cal., was elected and failed to receive notice.

The League is particularly happy in having a Board member on the Pacific coast just now, as an application already has been forwarded to Portland, Oregon, to exhibit at the Lewis & Clark Centennial. We did not hesitate to urge this exhibition at the Board meeting, because of the number of regrets received, both verbally and in writing, regarding our failure to exhibit at St. Louis. This, we call a providential opportunity of retrieval. The success or failure of our exhibitions rest upon each member individually.

It was further voted, at our Board meeting, to hold our travelling exhibition, to invite the chairmen of committees to be guests at the regular Advisory Board meetings, and to hold those meetings on the 3rd Friday of every month, at three o'clock P. M. at the Art Institute. All distant league members, visiting our city, are invited to attend.

BELLE B. VESEY,

GRACE P. MCMURTRY, President.
Corresponding Secretary, 6927 Normal ave., Chicago.

STUDY COURSE

Problem 1—Outline drawing for tea cup and saucer. To be manufactured and named after or by the designer.

Prob. 2—Design for 6 x 6 inch tile.

To be carried out in water color; in overglaze decoration, or executed in the clay.

Prob. 3—Jar—with or without cover.

To be built of clay by hand, thrown on a wheel or made in a mould. With or without glaze or ornamentation.

Prob. 4—Ten inch plate—plain with rim.

Prob. 5—Bowl—6 inch diameter, to be made from a League design.

Prob. 6—Tile or porcelain slab, 9 x 12 inches.

Prob. 7—Vase—Cylindrical, to be made from a League design.

MARY CHASE PERRY,
Chairman Com. of Education.

The year's work of the N. L. M. P. will consist of a study course of seven parts, beginning with a simple outline drawing for a teacup and saucer. There is no more practical demand in the realm of ceramics and it is to be hoped that a really good shape will result. There is especial need of a good handle, taking not only the ornamental possibility into consideration, but actual usage as well.

The next problem is an exercise in design which will hold the interest of all classes of workers, as it admits not only suggestions in a creative way, but also the complete execution in either color or plastic clay.

The third problem is not merely intended for those who are working in pottery, as has been too often inferred, but for every student of ceramics. Aside from any fascination which the clay itself may hold, it will prove a strong aid to the understanding of and feeling for form.

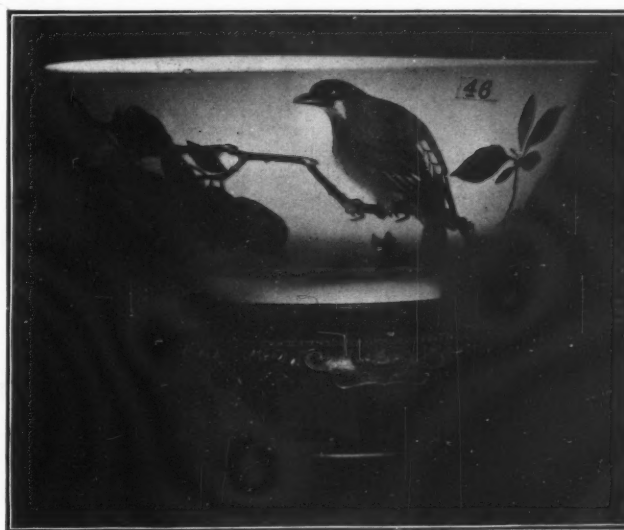
The four remaining problems are self-contained and each with its own object to present. They offer a field for the application of truths which will happily become apparent through the mental effort in former study.

As far as possible, it is the intention to embrace the study course as a whole and not merely selecting the part which appeals to each individual worker. We are trying to outgrow the emotional phase of admiration and interest in decoration and to acquire a more intelligent and understanding appreciation of its finer requirements. Our more wise educators have shown that a line of study which necessitates the exercise of the mental faculties—causing one to think—is the starting point of true development. If one selects constantly to choose the shapes or the line of work, which comes most easily to him to do, no matter how attractive the results, the educational benefit is lost.

We do not need to exploit special feats of execution nor technical specialties, in order "to show off". That was the manner of the yesterdays, when to do one's "best work" meant the most elaborate treatment possible, introducing every known trick of the art on the same piece of ware. Now we know that one's "best work" is often—rather always—his most simple yet appropriate conception, relying on the thought back of it, instead of the fanciful execution of a momentary fancy.

By limiting the number of problems as well as the pieces for decoration, the interest is centralized, beside giving greater opportunity for comparative benefits. The strong points and the weak ones as well, show more clearly if carried out within specified limits, so that a helpful stimulus is borne not only to those who look upon the final collection, but must perforce react upon each worker. In this way the perceptions of every ceramist will be opened and his scope broadened and result in an unconscious growth.

MARY CHASE PERRY.



Chinese Bowl in the National Museum at Washington, D. C.

This is a large bowl of pure white K'anghsi porcelain, plain inside. On outside a branch of the peach tree with fruit and leaves, the latter in all stages from the light green of the newly burst leaf to the brown of the withered, and worm-eaten. On the branch is seated a bird, termed by the Chinese a paroquet, having a red beak, brown breast and green plumage. Height of this bowl is 4½ inches; diameter, 8¼ inches.

GRAND FEU CERAMICS

XIV—GRAND FEU COLORS—Mat and Crystalline Glazes

Taxile Doat



In addition to this rich palette which develops on grès only in an oxidising fire, it was natural to determine another palette which would do well in a reducing fire, as grès naturally likes a reducing atmosphere and receives from it its superior qualities of a fine blueish grey tone and a great density. Besides, as grès is destined to be combined with other materials in architectural construction, it was necessary to give to its surface a mat tone which would harmonize better with the character of stone and brick.

With this end in view, the following glazes have been prepared by simple mixture and grinding:

Mat colorless glaze, slightly opaque:

Feldspar in flour,	30,0
Dry pure clayey kaolin,	40,0
Nemours sand,	28,5
Chalk,	20,0

Mat ivory yellow:

Feldspar,	35,7
Dry pure clayey kaolin,	13,7
Nemours quartz sand,	43,6
Chalk,	15,9
Ground natural rutile*,	9,6

Mat yellow:

Feldspar,	53,0
Clayey kaolin,	14,0
Quartz sand,	14,1
Chalk,	25,5
Rutile,	9,6
Red oxide of iron,	2,4

Mat reddish yellow:

Feldspar,	53,0
Clayey kaolin,	14,0
Quartz sand,	14,1
Chalk,	25,5
Rutile,	9,6
Red oxide of iron,	4,8

Mat violet speckled with yellow:

Feldspar,	33,60
Pure clayey kaolin,	12,89
Quartz sand,	47,00
Chalk,	15,00
Rutile,	6,00
Red oxide of iron,	6,00

Mat crystalline yellow brown:

Feldspar,	33,60
Pure clayey kaolin,	12,89
Quartz sand,	47,00
Chalk,	15,00
Rutile,	9,60
Red oxide of iron,	9,60

Mat crystalline dark green:

Feldspar,	30,85
Clayey kaolin,	25,35
Quartz sand,	36,00
Chalk,	28,00
Rutile,	18,00
Cobalt oxide,	12,00

* Rutile is one of the three forms of titanium dioxide.

Mat blueish grey green:

Feldspar,	53,0
Clayey kaolin,	14,1
Quartz sand,	14,0
Chalk,	25,5
Rutile,	12,0
* Cobalt oxide,	1,2

It is with these mat glazes that the great architectural fragment exhibited by Sèvres at the Exposition in 1900 was executed. It is also with these mat glazes that I decorate most of my ceramics. They make a pleasing contrast with the bright glazes used on part of a vase, and resemble more closely the mat effects of nature.

CRYSTALLINE GLAZES

After these, I must mention the crystalline glazes which have been received with such favor by collectors and the public at large. As a result of the researches made at Sèvres, these glazes can be obtained easily, even on large pieces, on grès as well as porcelain. As is the case for reds, the substances which form their composition must first be fused.

In order to vary the relative proportions of zinc oxide and potash, which are the fundamental components of crystalline glazes, and to establish the proportions most suitable to the formation of fine crystals, the two following mixtures are prepared:

	Frit No. 1	Frit No. 2
Dry carbonate of potash,	138	69
Zinc oxide,	162	202,5
Quartz sand (silica),	360	350

These are fused in an oxidising fire, then various mixtures of No. 1 and No. 2 can be tried.

The mixture which gives me the best results is:

Frit No. 1	85
Frit No. 2	15

It is necessary, especially for porcelain, to apply this glaze on biscuit fired pieces, to avoid warping and cracks which would occur, if the glaze was applied on raw or baked ware. The coat of glaze must be quite thick, so that an excess of glaze will flow during firing, and the piece should be placed on a high column made of lute or scraps of porcelain paste.

The presence of zinc oxide in this glaze makes it necessary to have a strictly oxidising atmosphere, and the temperature at which it will develop, is that of new porcelain, 1270° C., or Seger cone 9. A slow cooling favors the development of crystals.

I also use a yellow crystalline glaze which gives me very fine results. It is made by a fritting of the same elements with the addition of rutile:

	Frit No. 3
Dry carbonate of potash,	138
Zinc oxide,	162
Quartz sand,	30,0
Rutile	82

In this case I mix the glaze as follows:

Frit No. 2	15
Frit No. 3	85

If in Frit No. 3, rutile is replaced by pure titanium oxide, one obtains a colorless crystalline glaze, somewhat different from the first as to the appearance of crystals, and which is of great beauty.

These crystalline glazes, besides the artistic use which can be made of them for the decoration of small cabinet pieces, may be advantageously used in the decoration of tiles for architectural purposes, and give the latter a richness which has never been equalled by any other construction material.

I am satisfied that ceramists who will carefully prepare all

these fine glazes, will find the different processes which I have mentioned, a very useful guide. But one must not forget that all these preparations require some practice, strict weighings on accurate scales, pure materials, very finely ground so that their mixture will be thorough, also frittings made with the most minute attention. All these operations constitute an expenditure of time and labor, and it is to be regretted that chemists do not undertake the production of all the compositions which enter into the decoration of ceramics. I am sure that they would find it profitable, and it would free artists from this complex work, which restricts their art production.

Although the formulae contained in these articles have been studied for the PN porcelain body and the Sèvres grès, and strictly suit them both, artists, especially if other bodies are used, will need to constantly experiment with colored pastes and glazes. For such trials they will find it convenient to use a kiln in which firing will be rapid. I have adopted for this work the small Perrot laboratory furnace, the fuel for which is gas. It will hold six small sample tiles or a small vase 4 inches high and 2 inches wide. The temperature reaches uniformly 1300° C., and the atmosphere is reducing or oxidising at will. Porcelain is fired in it in two hours. This furnace is made by the firm of Mr. Wiesnegg, 64 rue Gay Lussac, Paris, in five different sizes. I use No. 3, which is more exact in its results, and costs 215 francs (about \$40). In this furnace frittings can also be made.

I have now reached the end of these articles which are perhaps beyond the usual scope of this magazine, but which fall in with the programme to which it devotes its energies: the advancement of the potter's art. This art is a part of human attainments, which ennoble man, are necessary to him, and which permanently perpetuate the history of humanity. It is from fragments of the potter's works, found in the ruins of ancient civilizations, that human evolution is reconstructed. And it is to be regretted that these fragments, which have been preserved only in the burning sands of dry climates, have not been made of less destructible material than faience. We would then have numerous documents to tell us the obscure history of the Middle East, of the great Asiatic uplands, the cradle of man.

Better favored by the richness of its soil and the precious quality of its clays, the Extreme East, China, shows us ceramics which, although 4000 years old, have not lost any of their

freshness, their brilliancy or sonority. The sinister crazing, forerunner of ruin, an open door to the disintegrating humidity, has not touched them.

It is the duty of our century, illuminated with science, to use this science for the technical development of wares which will survive, notwithstanding our damp and destructive climate. This goal is reached by the adoption of the finest of clays: kaolin. Its advance has been slow, its study bristling with difficulties, but it is beginning to take its place. Alone with its worthy partner, grès, porcelain possesses, besides its great beauty, this inalterability which will defy the wear of centuries.

These indestructible materials had to be enriched with glazes which would also resist the attacks of time. Modern chemistry is doing this fascinating work. Empiric and scientist, everybody, is bringing his formulae to this edifice of beauty, which progressive publications are anxious to unravel, by advocating the logic and charm of the grand feu. And the day is not far off, when Occidental ceramics, besides their fundamental quality of inalterability, will be "brilliant as a mirror, thin as paper and sonorous as a musical instrument," according to the Chinese poet. They will have also the splendor of Persian faïences, the sumptuousness of Hispano-Moresque wares, the richness of Italian potteries and the variety of the muffle fire palette.

I will conclude by saying that ceramists who will take their inspiration from these articles, and follow the instructions very carefully, are sure to obtain a first result, perhaps shapeless, because they will lack the practical teaching, the use of clay paste and the right handling of their kiln, but there is no doubt that after a few firings, they will begin to see through the complex details which form the technique of grand feu ceramics. At first they may use the PN paste for casting, made by Mr. Frugier, and fire a few simple shapes in the Perrot gas furnace. Thus their first experiments will be made at a very small cost. When they are sure of these first results they can build the coal kiln and pursue their experiments on bodies and colors. After a few coal firings, they will be able to transform the fire mouths into fire mouths for wood, and having mastered the handling of their clay and kiln, they will be able to give a personal touch to their work.

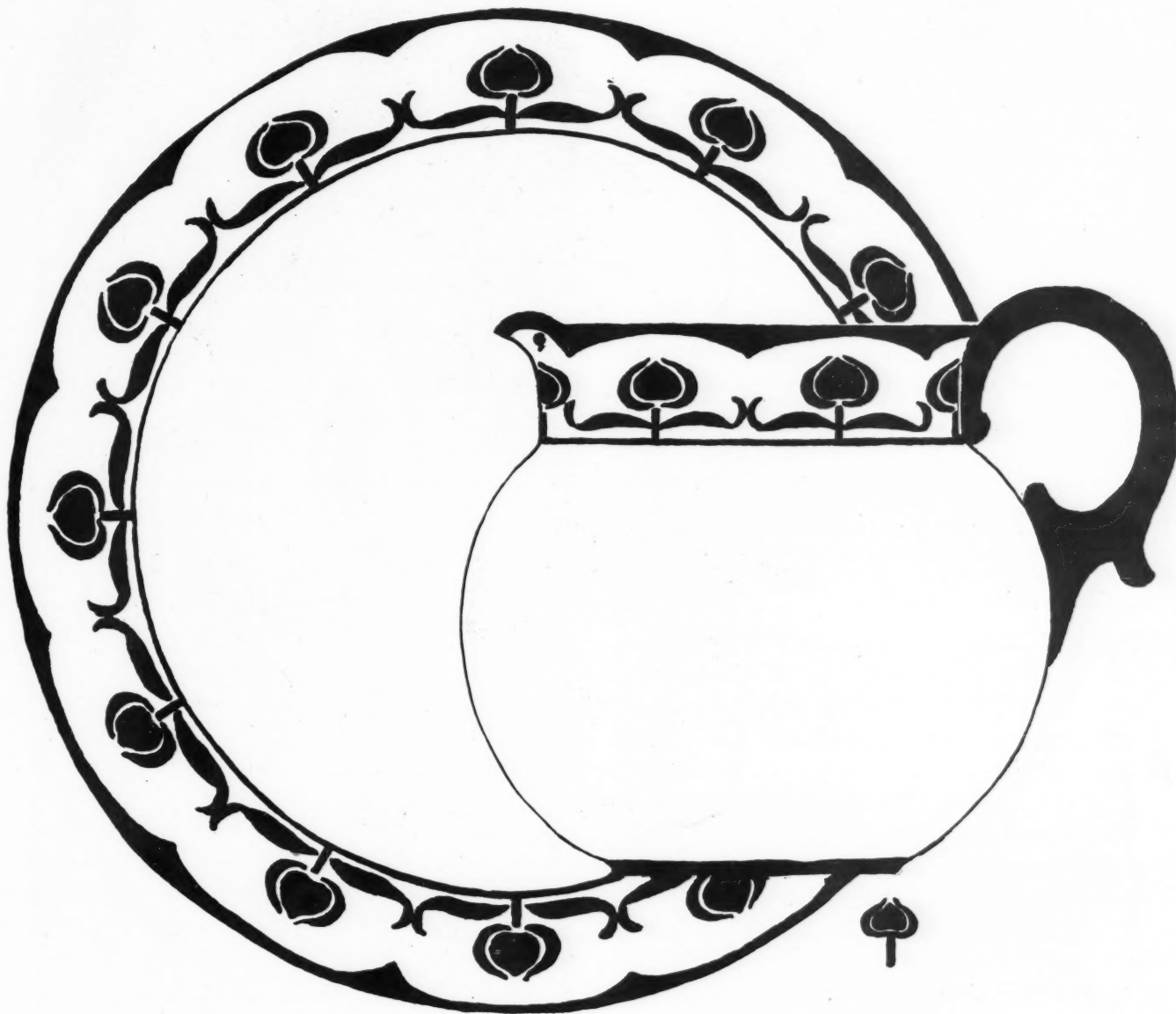
It will be a pleasure for me and the best of rewards, if I succeed in making converts and in reducing their first expenses to a minimum.



Porcelain Vase, crystalline glaze, by Mrs. Alsop Robineau—Cafe au lait ground, ashy grey crystals, outline around bunches of crystals reddish brown.



SUNFLOWER—MRS. K. E. CHERRY



DESIGN FOR CHILD'S SET OF THREE PIECES—BUTTERCUP—ALICE B. SHARRARD.

This set would be effective carried out entirely in Gold, or in rich shade of Yellow outlined in Black. Copenhagen Blue or Grey would also be pretty.

TRILLIUM

Adelaide Alsop Robineau



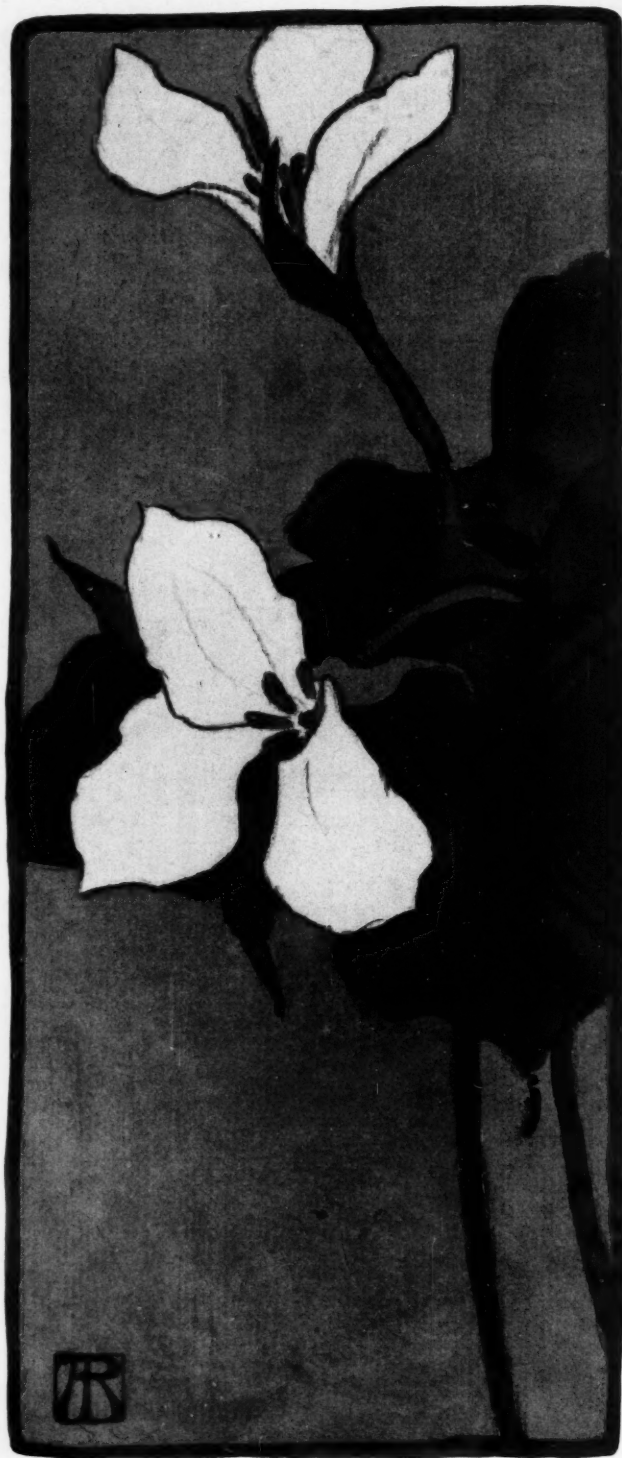
HERE are many varieties of the Trillium but the general characteristics are alike all over the country, the noticeable variation being generally one of color or size. Ordinarily one comes across the large white Trillium which turns pinkish with approaching age and finally a delicate violet before withering. On these the sepals are usually green and about the length of the petals but much narrower, in some varieties the sepals are much longer than the petals and of a purplish brown twisting at the ends as on the moccasin flower. Then one occasionally finds a scarlet variety or white with purple markings on the inner part of petals. So in conventionalizing the flower for design, one can without departing much from the natural motif vary the size and proportions of petals and sepals as well as the color.

In order to demonstrate the immediate applicability of a course in design to the decoration of porcelain, it seems advisable to select those problems which do not seem to be directly bearing on the work and show how they may be utilized.

Problem I: To compose a flower form in a rectangle so that the shapes of areas are well considered, the divisions of space are good, masses of dark and light balance and line movement is harmonious, also color as indicated by variations of grey. Figure 3 is an application to a pitcher of this flower composition. In repeating and using the entire panel as a motif it will be found necessary to extend some of the lines and eliminate others in order to make a simple and harmonious



Figure 3.



Problem I. Figure 1.

rythm. First repeat the motif exactly, then consider what lines may be omitted without injury to the design and line movement, omit all that you possibly can and continue the others so that the motif connects and makes a continuous border, change any lines that do not harmonize with the shape of the piece decorated, so that the form is emphasized; in the example given, the shape of the pitcher would be better if it bulged more in the middle; in that case the drooping flowers fit still better, emphasizing the fullest part of the curve. The color of the leaves is changed here so as to bring the lighter leaves in front of the darker, thus also emphasizing the curve in

color as in form. The lower part of stems might very well be made less conspicuous in color, fading away to the tone of the leaf where it passes under it. This would help also to keep the roundness of the pitcher. A good color treatment for this design would be as follows:

Tint the entire pitcher a greyish yellow tone—Neutral Yellow or Yellow Ochre with a touch of Black—then fire. Dust the same color over the background and darker leaves and stems, wiping out the flower petals and the lighter leaves, stems and sepals, which may be painted lightly with Moss Green. Use this light green also for light bands around top of pitcher, also the handle, the darker bands should be painted thinly with Pompadour touched with Black, dust this reddish tone also over the already dusted background at the base of the pitcher and over the lower stems and band at base, first painting them with the green; the darker green leaves and stems will be of the same green painted a little heavier and dusted lightly with the red—outline in a mixture of the green and red making a rather warm brown green. If after the second fire the colors do not quite harmonize the whole effect can be brought together by a last dusting color, of whatever tone is too weak.

Problem II: A symmetrical arrangement of a flower form in a panel, paying special attention to the same points as

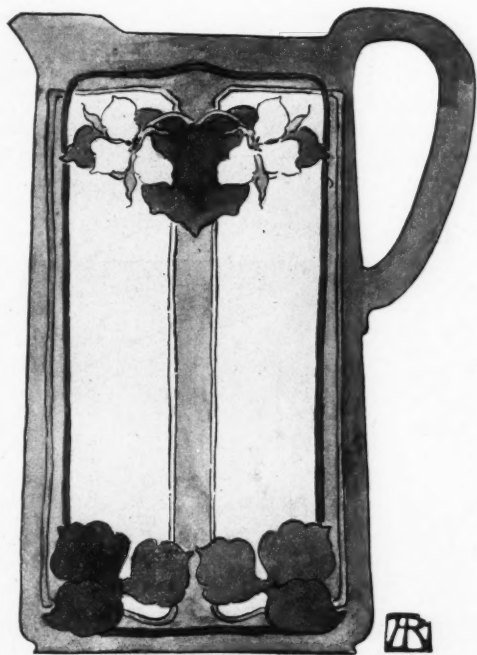
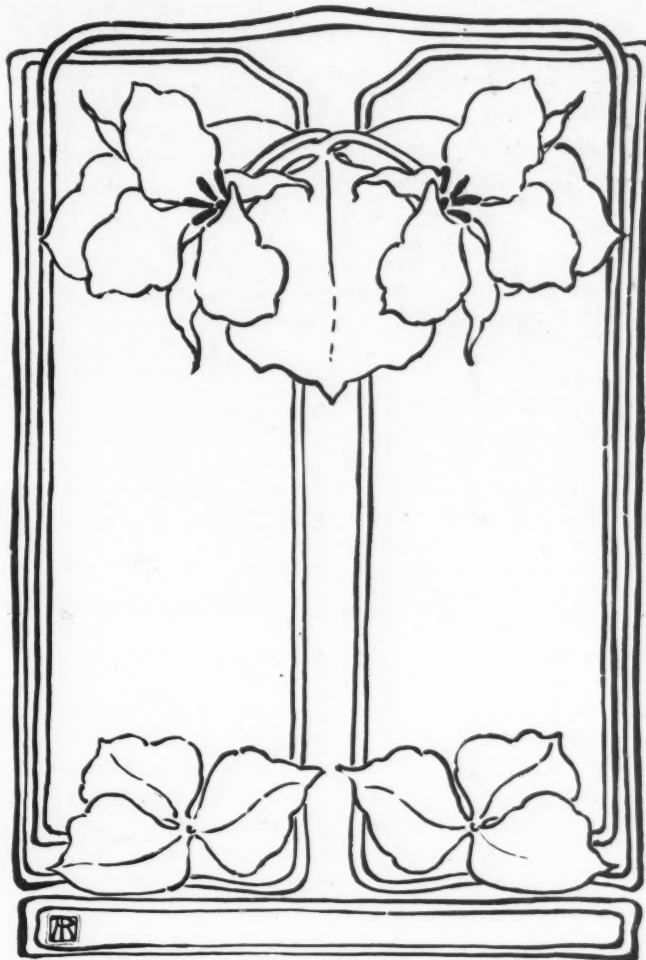


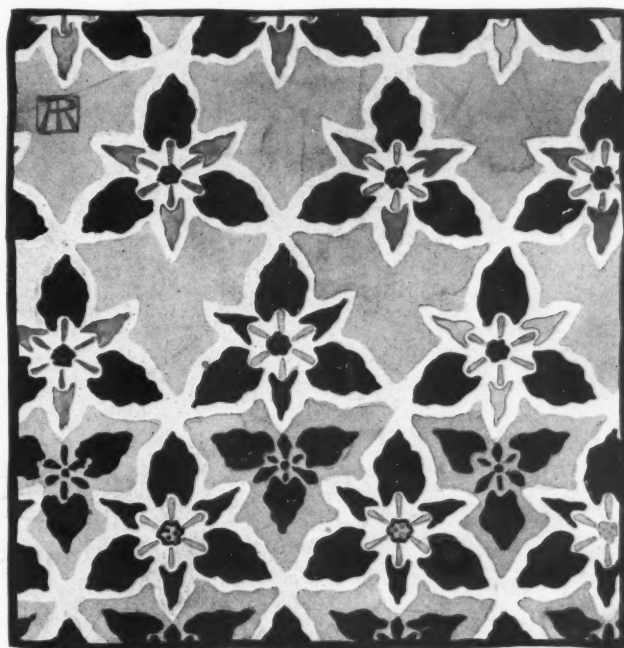
Figure 4.

Prob. I. Fig. 4 is a direct application of this problem with the addition of color. It will be easy to adapt this design to any form of pitcher by simply lengthening or shortening the stems and letting them and the dark panels follow the perpendicular of the piece to be decorated, leaving any widening or changing of space to show in the light panels only. A good color scheme for this pitcher would be as follows: Tint the entire pitcher an ivory yellow and fire. Tint the light panels again, leaving the flower as it comes from the fire. Tint the darker panels and handle yellow brown, the leaves and stems, the same with a darker brown added, outline in brown slightly darker—or if green tones are preferred, the darker portions can be executed in varying shades of green. A third fire in which

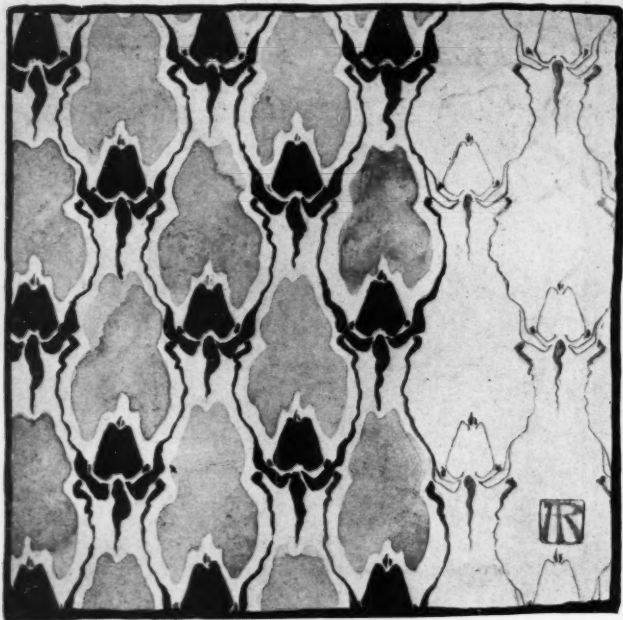


Problem II. Figure 2.

the piece will have a dusting all over of either ivory yellow or light green would bring the piece well together or if the color does not just please when it comes from the second fire, a



Problem IV. Figure 5.



Problem IV. Figure 6.

dusting may be given of some other color which will quite change the effect.

Problem IV: An all over pattern to develop the judgment on the same points as in problem I with the addition of repetition at suitable intervals vertically and horizontally, not crowding or scattering, and striving for simplicity—the lower part of Fig. 5 shows the effect of crowding—forms of background spaces to be especially considered. Fig. 6 is another

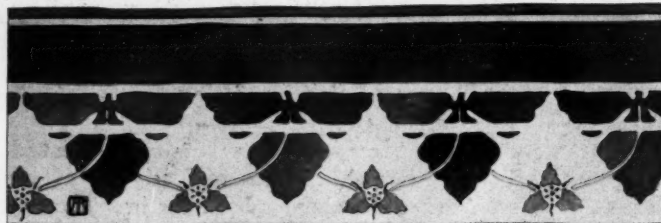


Figure 7.

example of the same problem showing the units connected. Fig. 7 is an application of Fig. 5 to a border for a bowl, adding the leaf to give variety. This can be agreeably executed in almost any color scheme. Fig. 8 is an application of Fig. 6, to be executed in yellow, yellow brown lustre and gold—repeated washings and firings of the lustre will give varying tones and develop pearly tints in the yellow lustre which are very attractive.

Problem V: A tile composition based on the "Swastica," still considering the same points as in Problem I, but adding four sided symmetry and a still more strict conventionalization, as being more appropriate to its use. To be executed in three tones of any desired color scheme.

Problem VI: Is a study of "Facts about flowers," with a conventionalization of the same, is a simple application of one of these motifs in a repeat as a border for a bowl, plate or cup and saucer, this would be effective in grey and blue.

Problem VII is similar to Problem I, making the arrangement in a fan shape. Fig. 10 is an application of this panel to a bowl, it would perhaps be better if this panel were a little longer in proportion to its width, thus giving more space in the middle background. The vertical lines below might be omitted if

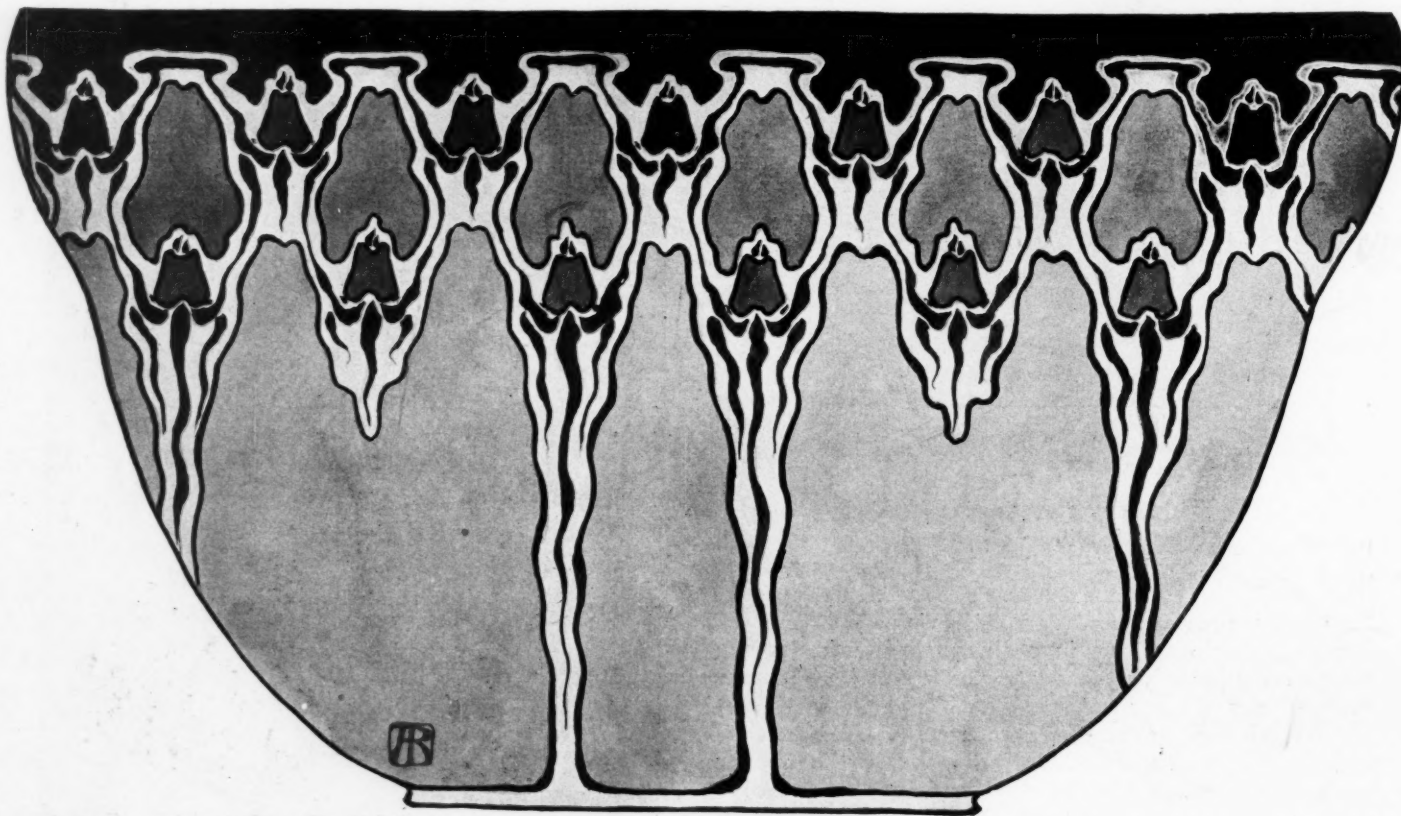
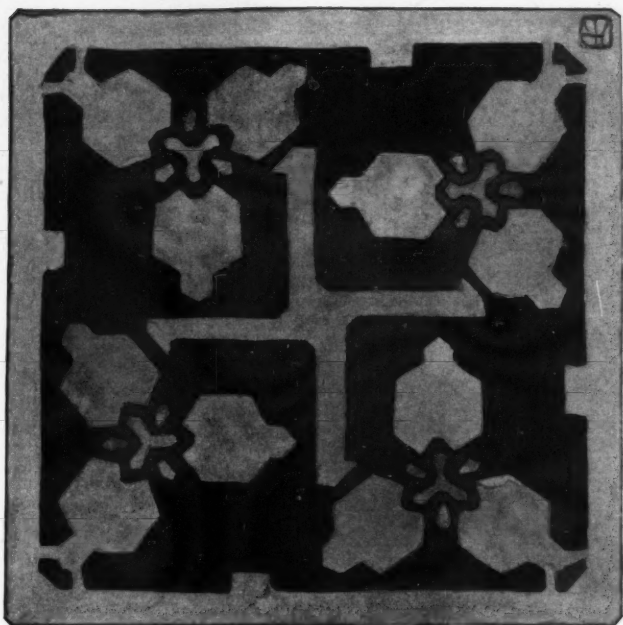


Figure 8.



Problem V.

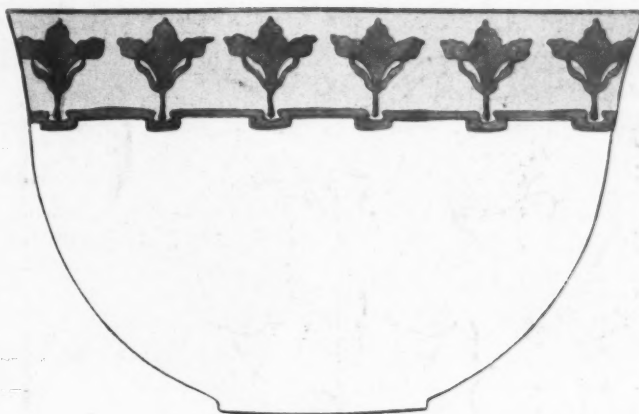
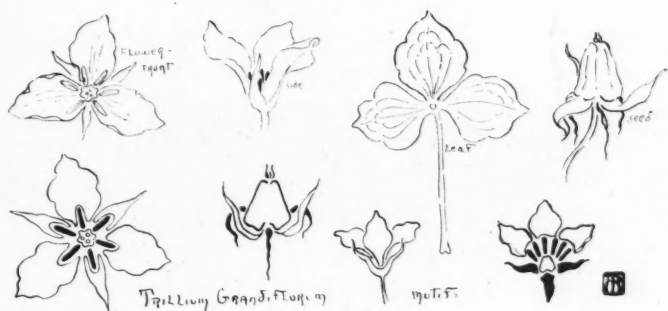


Figure 9.

or Royal Green, the trilliums should have another wash of the neutral yellow. If after firing the design does not hold well with the bowl, give a final dusting of the neutral yellow or any tone which will bring it more in harmony. This point of harmony of color *must* be decided by the decorator. Directions

desired. The following color scheme is suggested: Dust the bowl outside and tint it inside with neutral or some warm greyish yellow and fire it, make the rim and background of



Problem VI.



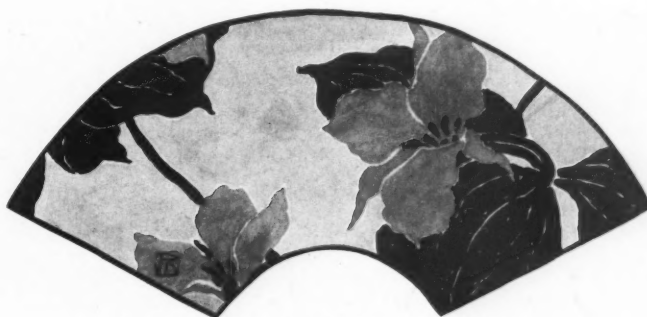
Figure 10.

flower panels, also outlines, a dark blue, perhaps Royal Blue with a touch of Black, or Banding Blue with a touch of Purple and Black; the leaves, stems and bands should be painted Moss

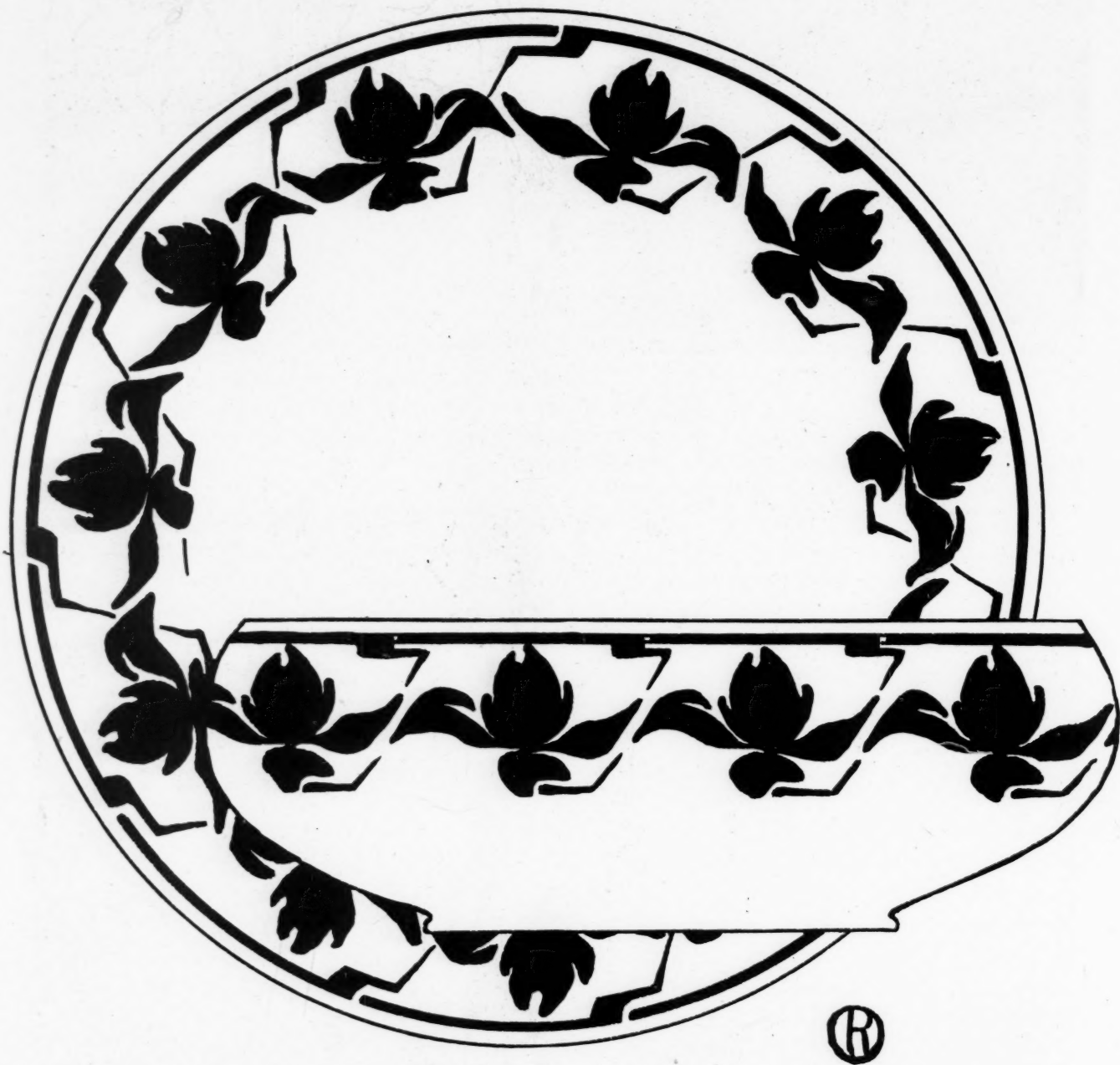
are given but no two decorators work alike and the results will be varying in intensity of color and only the one who is working at it can judge when the harmony is complete and satisfying.



Problem VII.

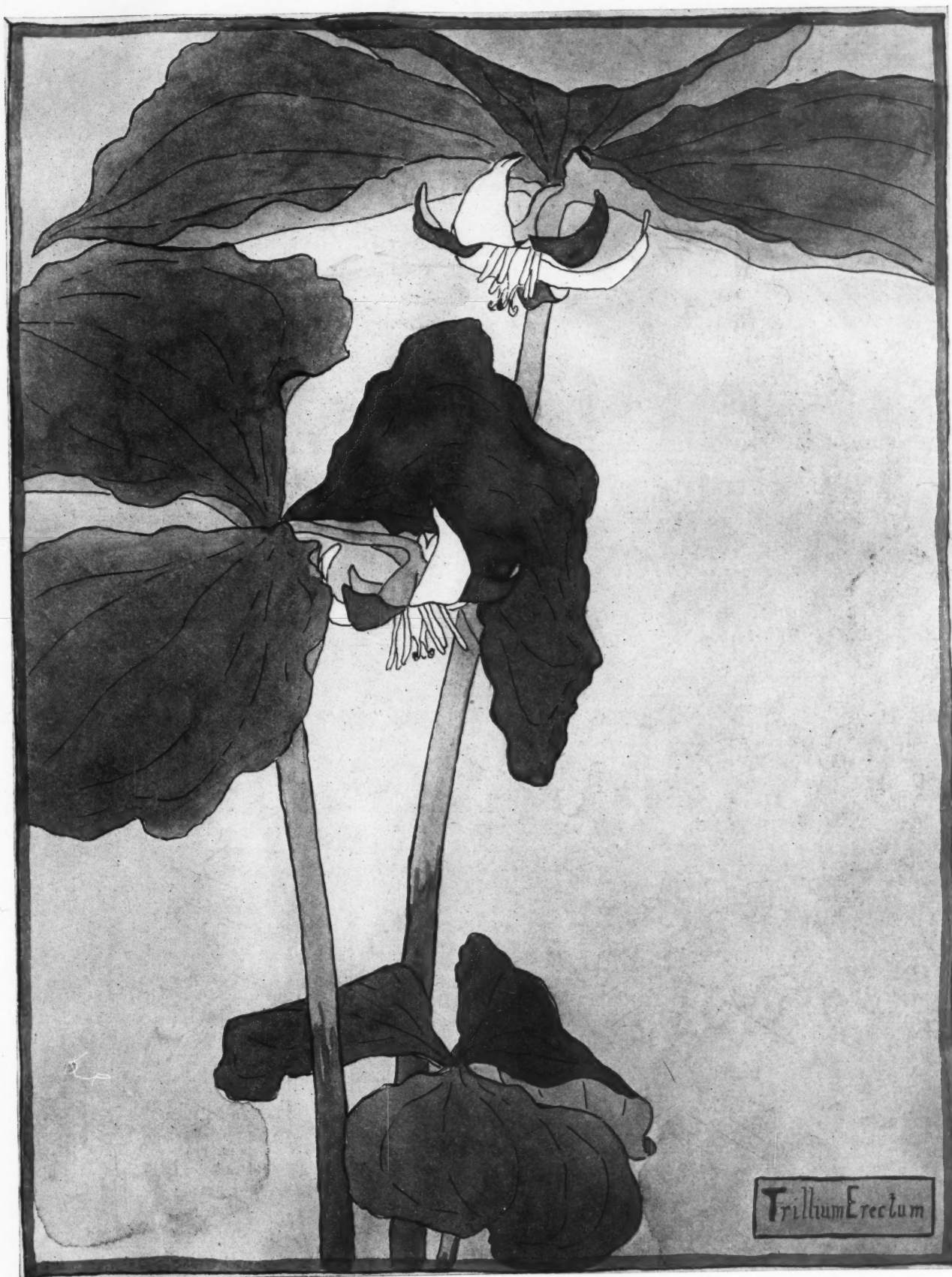


Problem VII.



CHILD'S BREAD AND MILK SET—CLOVER—AUSTIN ROSSER.

This set is to be done in monochrome using a tint for ground and medium flat tone for design.



DECORATIVE STUDY OF TRILLIUM—FIRST MENTION—HANNAH OVERBECK



FIJI POTTERY

Randolph I. Geare

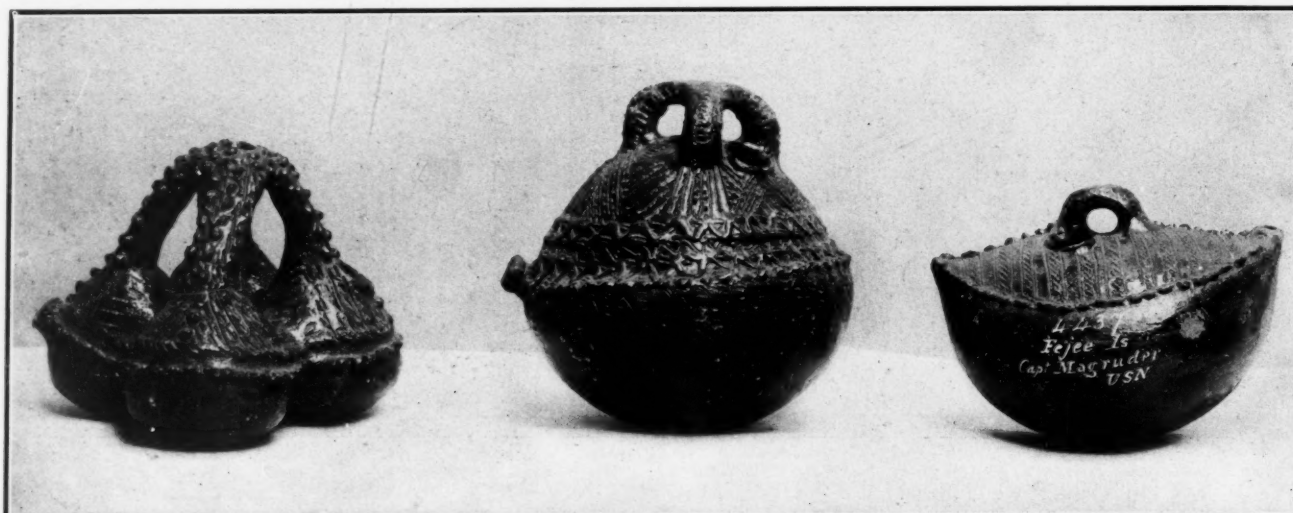
THE Fiji or Viti group, which passed under the sway of Great Britain in 1874, comprises about two hundred and twenty-five reef-bound islands. Only two are of any considerable size, namely, Viti Levu and Vanua Levu.

Travellers have often recorded their astonishment at finding in these islands pronounced evidences of artistic skill, and this is the more surprising as the inhabitants of neighboring groups seem to be destitute of any tendency of the kind. Thus in the Navigator Islands, there seems to be no manufacture of pottery even of the rudest description. Nor can this be accounted for by the absence of suitable clays, as these last mentioned islands possess material eminently adapted to the making of pottery. One explorer in the Fiji islands, referring especially to the native pottery, writes, "I was constantly struck with the originality of their patterns, the fertility of their inventions, and the ingenuity with which they were applied to the object to be decorated." The native Fiji pottery is therefore to be highly commended, and considering the

coarseness of the materials used and the rude manner in which it is fashioned, and also that the people are such as the civilized world has been accustomed to regard as mere savages, one cannot fail to be deeply impressed by the artistic beauty and great variety of the forms produced.

The pottery of Fiji is always made by the women, and is hand-made. The potter exercises her sweet will as to the size, form and ornamentation of the object. Some of the jars are more than two feet high, oviform and with large mouths. The chief peculiarity about their form is that they are generally without a flat base to stand on, the bottom being merely a continuation of the curves of the sides. When they are required to stand erect, they have to be placed in deep rings of plaited grass, and when used for culinary purposes, they are placed sideways on the fire. Seemingly, this lack of a base to stand on must often have proved very inconvenient, and the perpetuation of this awkward form is only another proof of the difficulty in getting away from stereotyped customs that have been inherited from other regions through preceding generations.

The large pots are used for cooking "dalo", the native



vegetable in common use for food. At various points in the islands have been found saucer-shaped dishes of a bright terra-cotta color, some of them displaying beautiful tints of amber, brown and gold. Large spherical jars for holding water, with short necks and footless, like the cooking pots, are made in large numbers. It is doubly curious that this unstable form should have extended to the water-jars, which of all things one would suppose should be able to stand upright without assistance. Some of the more fanciful articles have very quaint forms, the potter having evidently modeled her jars after various kinds of fruit and other common objects. One—an oil vessel—evidently was intended to represent a cluster of oranges. A small bottle was fashioned after a specimen of bread-fruit with a slice of the rind removed. Carved wooden cups, too, are sometimes imitated in pottery, while other articles are modeled like canoes and other objects with which their minds are readily associated.

The process, which is about the same whatever may be the form of the object to be manufactured, is known as "coiling", and may be described as follows: The potter takes a lump of damp clay in one hand and presses into it a round stone (which is to be the bottom of the jar) held in the other, molding the clay up over the sides of the stone with a flat, smooth piece of wood shaped like a spoon. Fresh clay is added in long

sausage-shaped rolls, the stone being still held inside, while the clay is patted and pressed with the piece of wood from the outside. In due course, the shoulders of the jar are rounded, the lip added, the first smoothing-over completed, and the jar is made.

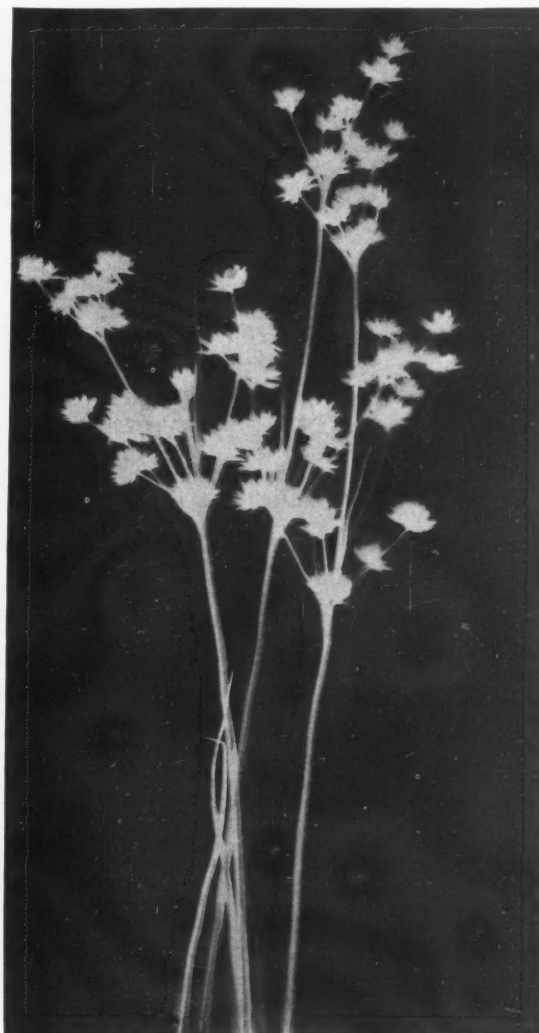
After being allowed to dry in the sun for some time, the pots are first baked on a light straw fire and afterwards with wood, and while still hot are glazed with the heated resin of the ndakua pine, very similar to the Kauri pine of New Zealand, which yields a beautiful amber-like gum.

The ware is generally yellowish red, the tint varying with the kind of clay used.

In one or two districts, instead of building up a series of clay sausages, the women beat out a flat piece of clay on their hand, and then gradually mold it into a cup-like form over a smooth stone with the aid of a wooden spoon. After drying for several days, the pot is taken to a sheltered nook, where a pile of light wood and sticks is built. On this the pot is laid, covered over with sticks. Fire is then applied and kept burning for about half an hour. Then, while still hot, the pot is well rubbed with a dark red dye—an infusion of mangrove-bark—which gives it a slight glaze and a red color. Fiji pots are often decorated around the neck and shoulders with dots and lines, which are incised in the clay while still moist.



Yellow Mustard



Grass



HIGH BUSH CRANBERRY—MRS. C. L. WILLIAMS.

HIGH BUSH CRANBERRY

Mrs. C. L. Williams

MINERAL COLORS

FIRST fire—For the leaves in the foreground use Moss Green in the lightest parts, shading with Dark Green No. 7 and Brown Green, using the latter combination with a touch of black in the deepest shadows. The more distant leaves are painted with Apple Green and Empire Green. The turned over edges are painted with a combination of Apple Green and Copenhagen Grey to give a greenish grey tint. Wipe out the flower clusters, keeping the edges of the distant ones very soft. The small center flowers are cream color with green centers; paint them with Yellow Brown and Empire Green. Wash over the larger flowers with the thinnest tint of Ivory. For the larger stems use Violet of Iron and a little warm grey, running this into a delicate green where they join the flower clusters. Make the background a delicate green at the top shading into dark green at the bottom. Paint the shadowy leaves into the background while wet, and pad the latter over the edges of the distant flower clusters. Dry and dust with Ivory Glaze.

Second fire—Strengthen the leaves and shadows with the same colors used before. Shade the larger flowers with a grey composed of Pearl Grey and a little Black. The little dot in the centers is nearly black. Shade the small flowers with Brown Green and Yellow Brown. The little stamens may be made with White Enamel. Should the greens be too light retouch and fire again.

WATER COLORS

Use Whatman's paper. Sketch design very lightly. Moisten the paper on the back and lay it over wet blotting paper. The leaves are painted with Hooker's Green No. 1 and Aurora Yellow for lightest tints. Use Hooker's Green No. 2, with Olive Green for darker tones, adding a trifle Payne's Grey and Alizarin Crimson in the deepest shadows. Wash over the larger flowers of the cluster with a very light wash of Yellow ochre and Payne's Grey. Paint the stems with Madder Brown where they are largest, gradually running into a delicate green where they join the flower clusters. Wash in the background with same colors used in the leaves, making it darkest in the lower right hand side. In finishing work out the principal leaves and center cluster carefully. The small center flowers are painted with Chinese White and Yellow Ochre. Use Chinese White with a trifle Yellow Ochre on the high lights in the larger flowers as the paper does not give the right tint. Stamens are of Yellow Ochre and Chinese White.



CUTTING GLASS IS EASY

Diamonds Not the Only Things Needed to Sever the Brittle Substance

IT often occurs that glass tubes of various dimensions have to be cut where a diamond is not at hand, as in shops and power plants, where oil and water gauge tubes must be neatly fitted. The usual method adopted is to file a small groove around the tube and separate the glass with a sharp rap at the place weakened by the file. The result is not always satisfactory because the ends often break unevenly, owing to the difficulty of making a straight groove with the file. Better results are obtained when only a small incision is made with a file, just enough to cut through the enamel of the tube on one side, and not all around. While the tube is still warm from the friction of the file, the tube is then taken between the thumbs and forefingers around the tubing, close, but not covering the incision. Pressure of the thumbs invariably causes the tube to break in as straight and clean a line as though cut with a diamond.

Another method is to use a fine saw blade (the finer toothed

the better, for saw is only another form of file) and this should be kept fed with fine emery, carborundum or pulverized silica, sand or hard grit, moistened with camphor, oil, turpentine or water.

A straight, steady and even stroke should be made, and when the work is carefully done against a gauge the cut will be as true as though it had been ground. Nor is even a toothed blade necessary if a suitably hard and finely gritted abrasive is used and regularly fed between the glass and fine wire, watch spring or blunt, but even, blade of an ordinary table knife. The latter will be somewhat slow, of course, but a fine steel wire, run at high speed like a band saw, if regularly fed with fine emery or carborundum, will give very satisfactory results, not only for cutting either straight lines or curves in window, but plate or optical glass, in such thickness as makes cutting with a diamond difficult, precarious or impossible.

Window glass, especially single strength, can be accurately split either in straight or curved lines by first making an incision through the enamel of the glass and then holding a hot iron close to the incision till a fracture is started. The fracture will follow the hot iron with remarkable fidelity. The iron should be preferably round and somewhat blunt and with a bulky head (like an ordinary fire poker), so as to retain its heat well for long cuts, especially for thick sheets, to keep the fracture going when once started, even if two heated irons have to be used.—National Gas Budget.



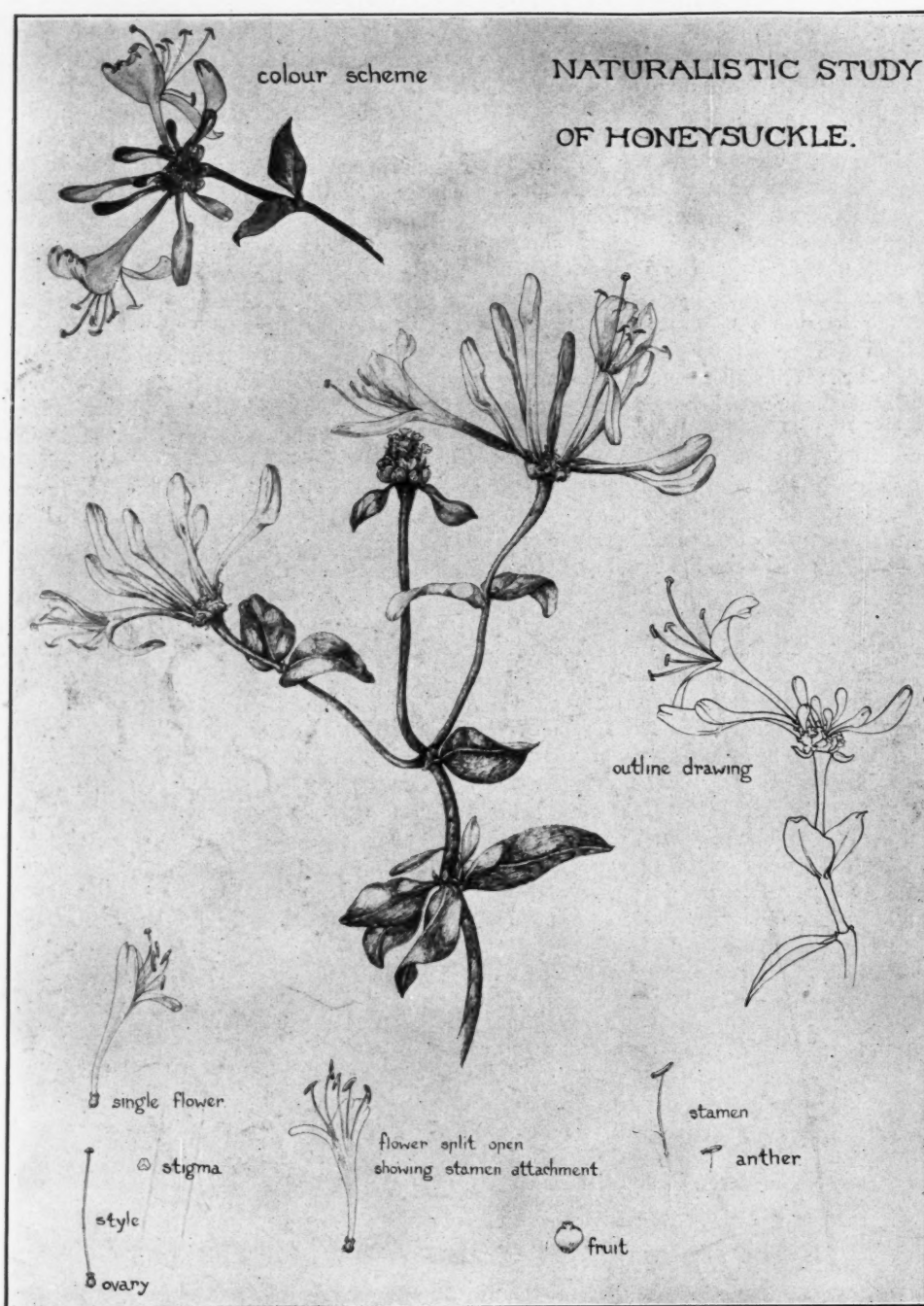
TRILLIUM ERECTUM.

Jennie Hanson

THIS plant that sends its fetid odor up to your face as you stoop to admire its beauty of form and color needs for its sepals a rich light green.

Petals are a dull red with a hint of purplish brown in its darker shadows. Stem brownish most of the way down.

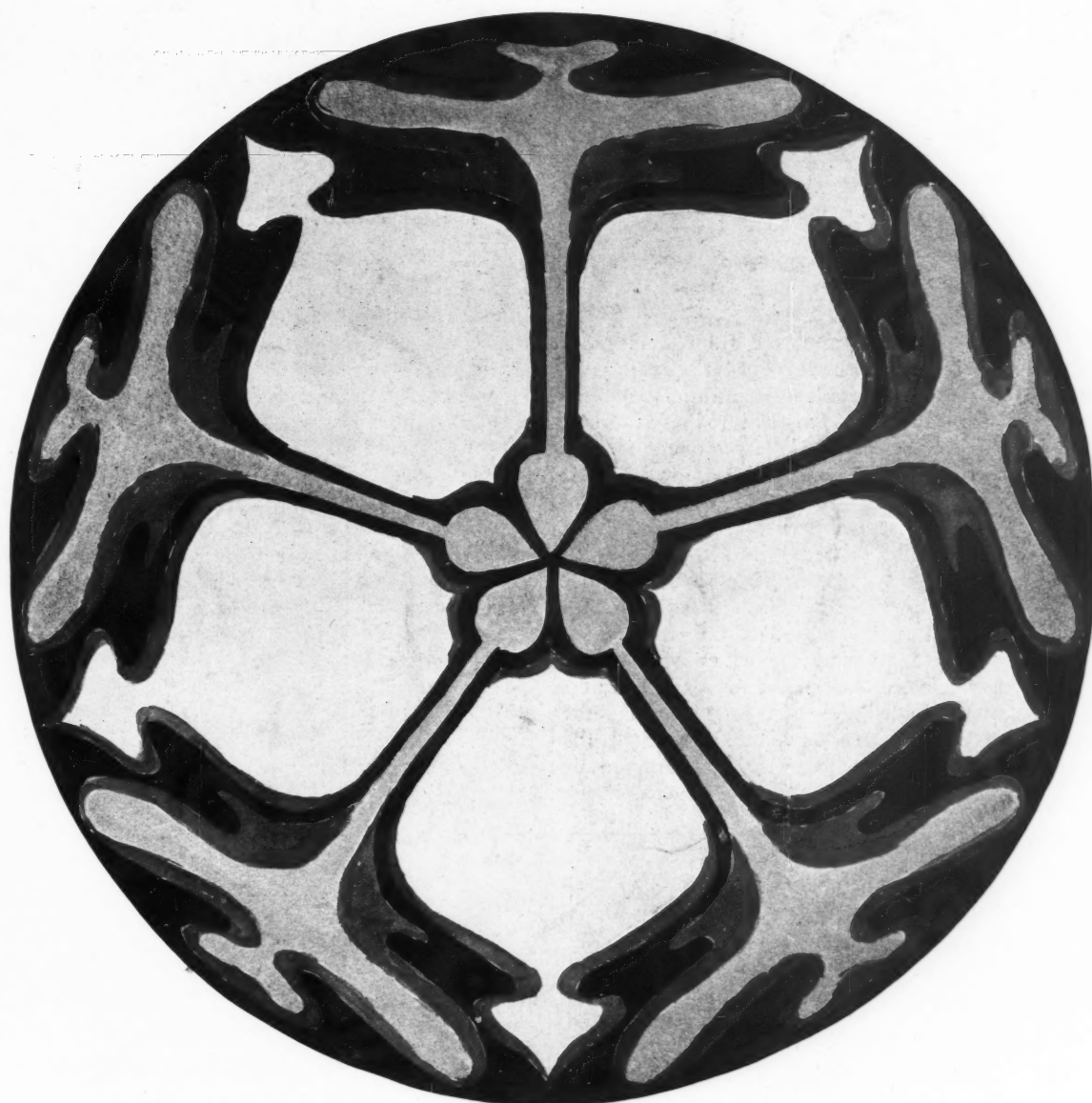
Center of flowers six pointed and same red color of petals. pistil yellow, stamens pale grey green with line of red lengthwise through its center. Plant leaf, rich green, lighter underside.



HONEYSUCKLE—MARY C. THOMAS

THE Honeysuckle is a rich cream in color, shading into red, the buds crimson; as it grows older the cream color becomes darker in tone; the leaves are of a whitish green, the stem

reddish. For painting use Albert Yellow (or Orange La-Croix), Pompadour or Carnation Red, Moss Green and Brown Green.



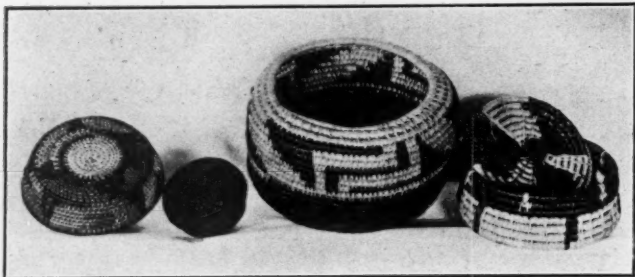
TEA TILE—MARY E. MASON

Ground neutral yellow, border black, figure, orange lustre, covered with yellow lustre in second fire. Center of figure, silver.

THE CRAFTS

WOOD CARVING AND PYROGRAPHY. LEATHER AND METAL. BASKETRY, ETC.

Under the management of Miss Emily Peacock, summer address, 4477 Western Ave., Westmount, Montreal, Can. All inquiries in regard to the various Crafts are to be sent to the above address, but will be answered in the magazine under this head.



A Group of Baskets.

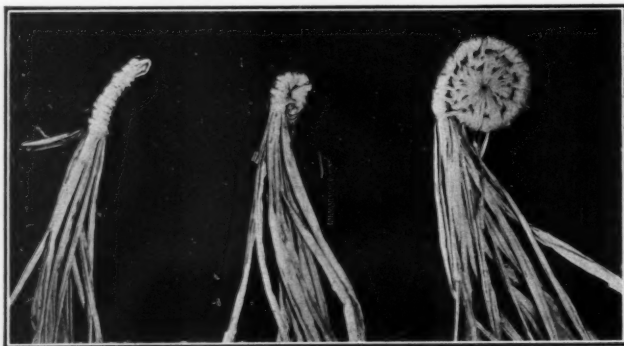
SOME WORK IN RAFFIA

Madge E. Weinland

RAFFIA is a grass-like fibre imported from Madagascar where it is obtained from the leaves of the raffia palm. These leaves grow to an enormous length and are stripped of their outer skin, which is dried and twisted into hanks. It can be obtained at seed stores in the natural color or dyed in various colors and shades. Before using, the undyed material should be washed in hot water until thoroughly saturated and then hung up to dry. This treatment softens the strands, making them more pliable and easily worked.

To make a raffia basket, first thread a single strand of raffia at the larger end into a No. 2 darning needle. Choose several strands of raffia (say twelve) and double them. This is to form the roll or filling and will make one of large size, but a smaller one can be made of from one to three double strands.

Commencing at the folded ends of the strands that have been doubled, hold the smaller end of the weaver, or threaded strand, in with the filling and wind the weaver toward you nine times around, not overlapping (Fig. 1). Bend the roll in such

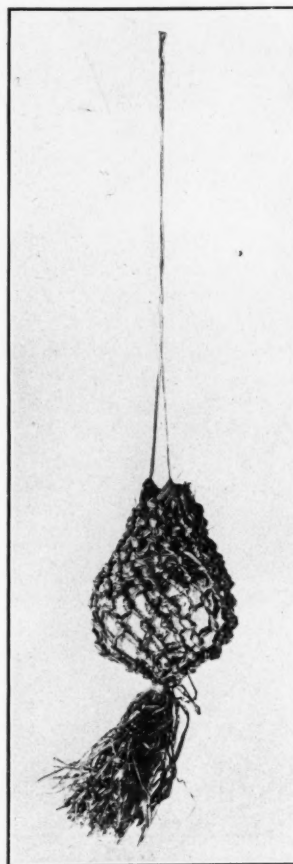


A Raffia Basket—First Steps. Fig. 1.

a way as to bring the two ends together and pass the needle through the first end or starting place (Fig. 1). Wind three more times around the filling and insert the needle through the hole in the center of the coil. Wind three times again and pass the needle through the same point. Repeat this until you have worked once around the coil. Now insert the needle through the roll instead of through the hole in the center of the coil as heretofore. Wind three times around and again insert the needle through the roll. Continue this stitch until the basket is finished.

Having made the bottom the size desired, form the side, by gradually carrying the roll upward until it lies over the previous roll. To end the basket after reaching the desired size, remove the filling by cutting out two or three strands, at a time, commencing directly over the point where the side was started.

To maintain the size of the roll, as the strands run out, lay in new ones but do not tie them. When the weaver is nearly used up lay the end in with the filling and thread a new one, placing the end into the filling as before. By using weavers of different colors and working in a design, a more effective basket can be made.

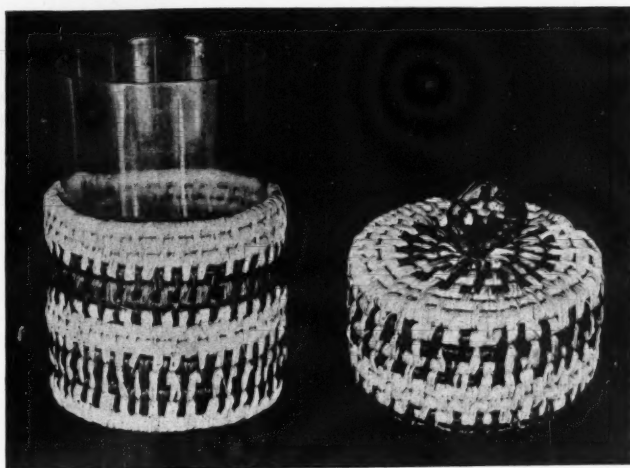


A Knotted Bag for Twine.—Fig. 2.

KNOTTED BAG (FIG. 2)

Select 17 strands of raffia of uniform size and of the desired color. Loop them at their middle point around a stick 18 inches long and knot each one, placing them half an inch apart. The loops must be of uniform size so that the knots will be in a straight line. About half an inch below these, knot one strand of each pair with a strand of the next pair, leaving an unknotted strand at each end. This forms the second row of knots. Continue this, dropping off a strand at each end of the row, until you have completed a V shape mesh. Remove the stick, bring the two edges of the mesh together and join them by knotting, thus forming a bag. If this work is carefully done, the joining will not be noticeable. Tie the

bottom by winding tightly around with a strand of raffia. Cut off the ends of all strands four inches below this point, thus forming a fringe. Draw a strand of raffia through the loop at the top of bag, cut to the desired length and tie two ends together.



Travelling Glass. (Fig. 3)

TRAVELLING GLASS (FIG. 3)

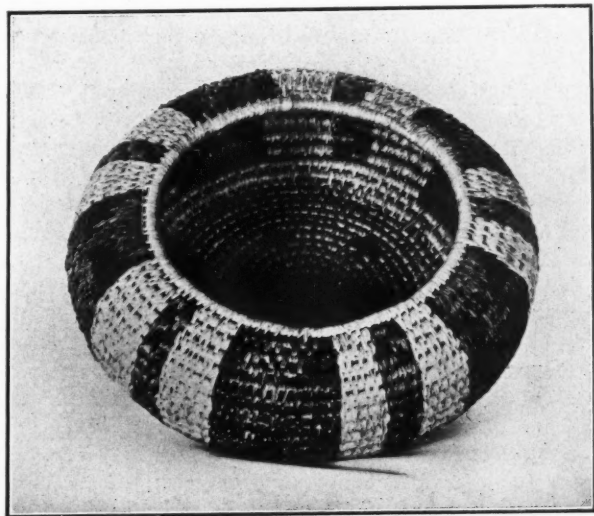
To make the cover select a glass of the size desired. Make the bottom of the cover one roll larger than the base of the glass, then turn the roll as described in the basket instructions, but insert the needle underneath the roll instead of into it. Bands of various colors can be woven in if so desired. When the work covers half the glass, end the lower half more abruptly than the ending of the basket. Make the upper half in exactly the same manner and fit over the glass.

The colors used in the glass cover shown are light blue with black and orange with black.

A reed filling can be used instead of the raffia filling, but with reed a different stitch must be made.

In Fig. 4 the small stripe is alternate squares of black and green, the wide band is black with Indian red designs.

The two largest baskets in the group are made from brown and natural raffia.



A Raffia Basket. (Fig. 4)



Miss Robinson, Pratt Institute.

TWO WOOD CHESTS AND A WALL CABINET

THE wood chests designed and executed by Miss Robinson and Miss L. Todd, Pratt Institute, were both made of butternut and carved in low relief.

The one made by Miss Robinson was colored with malachite green, mixed with ebony black and a soft finish put on with wax. Miss Todd used walnut stain for color and also a soft wax finish. The small wall cabinet designed and executed



Miss L. Todd, Pratt Institute.

by Miss C. H. Budd, Pratt Institute, was made of English oak and measured 2 ft. x 1 ft. 9 in. x 6. The carving on each side panel was done in low relief, and also the quotation at the top, "Silo et philosophus esto." In the center of each of the small doors, there was an open space 3½ inches square, these spaces were filled in with dark green stained glass, and over the glass a square of pierced copper was fastened. The hinges and handles were colored with acid until they harmonized with the wood.



Miss C. H. Budd, Pratt Institute.



TEA CADDY

Emily F. Peacock

THE tea caddy illustrated is made of copper and brass, the body part, practically two bowls soldered together.

MATERIALS REQUIRED

A circle of copper 6 inches in diameter, 20 gauge, a circle of brass 6 inches in diameter, 20 gauge. For the lid a circle of brass $2\frac{1}{4}$ inches in diameter and a strip $\frac{1}{4} \times 7\frac{1}{2}$ inches of the same material, also a knob of copper or brass.

TOOLS

Pattern block and hammer as given in the June issue, page 47. Pattern block Fig. 1, page 70, July issue. Anvil, round steel punch, steel compass and point, silver solder, flux, blowpipe and flame, etching acid, glass or porcelain dish, files, emery cloth and sand bag.

METHOD

To form the lower part of the tea caddy hammer the circle of copper two inches from the centre out to the edge on the wood pattern, see Fig. 1, page 47, June issue. Keep the bottom of the bowl perfectly flat and the sides rather straight. When the bowl is the proper shape make the edge very true with a file and emery cloth. Place the bottom of the bowl on cement or on a sand bag and with the steel punch repoussé from the inside three small feet at equal distances. The brass bowl or upper part of the tea caddy is hammered on a pattern block into a gradual curve (see July issue, page 70). Commence to hammer the circle of brass one inch from the centre and continue until the bowl assumes a good shape and fits well over the lower bowl. The next step is to make the opening for the lid. Mark a circle with the steel compass in the centre of the brass bowl 2 inches in diameter, and another circle outside this one almost a quarter of an inch larger. Saw out the smaller circle with a hand saw, hold the edge of the larger circle against the anvil and with a rounding hammer beat back the metal along the marked line very gradually. This process should make a straight neck for the lid to fit over.

To make the lid, slightly curve the small circle of brass and bend the narrow strips to fit round it, this must also fit the neck of the tea caddy. Solder the ends of the strips together, making a ring, wire this to the top part, and solder from the inside. The knob can either be soldered or riveted, in the exact centre of the lid. Arrange the Japanese signs for Spring, Summer and Autumn around the top part of the tea caddy and mark them in with a steel point. Put the sign for Winter on the lid. Etch these in with nitric acid, as given in July, 1903, KERAMIC STUDIO.

When the etching is done the two bowls are soldered together. Atmosphere gives the best tones to the outside of the tea caddy but a silver plated lining inside adds to its value.

THE PRIMITIVE ARTS CLUB

A LITTLE over a year ago the "Primitive Arts Club" was organized in Brooklyn, N. Y., and became permanent in the fall of 1902 with resident officers, and a board of directors chosen partly from the out of town membership. Miss Lena Eppendorff, the promotor, was elected president, Miss Mary White, vice-president, and Miss Eloise Prentice financial secretary. A meeting place was generously offered by the Misses Griswold and all meetings but one have been held at their studio, 221, Washington avenue, Brooklyn.

The idea of the club was to bring together handworkers in various lines, especially those experimenting with raw materials and the simpler processes of construction (without use of machinery) that all might be benefitted by the experience of each other and the labor of investigation economized. Scientific accuracy in naming and testing could not be ignored although no exhibit would be considered complete without labelled specimens of raw materials and the finished article attesting beauty of color, form and design in useful articles.

In March, 1903, the meeting for the discussion of basketry was very enthusiastic. Miss Marie Perrin, of the Ethical Culture School, gave an account of the children's delight in all these early stages of art work. Miss Mary White read a paper on Indian basketry, explaining the stitches, the materials and the significance of the work to the makers. Miss Helene V. Johnson of Providence spoke on mat making among the South Sea Islanders. She told also of her studies among the Western Indians of North America and how she won them as friends before they could be persuaded to be her teachers.



Miss Romiett Stevens has with her high school pupils at Pratt Institute been inventing looms and making baskets, using Industrial History as a basis and testing all the allusions to simple home manufactures.

At the June meeting Miss Dopp of Chicago University spoke informally on the value of primitive research as an educational basis, and the keen interest with which little children follow the same evolution through experiments by which the race development to civilization has been achieved. The care and use of our native products she recognized as a field too sadly ignored by our modern arts and crafts workers.

In November, 1903, Dr. Grout of the Botanical Department of the Brooklyn Institute of Arts and Sciences gave a most interesting talk on "Our native grasses, rushes and sedges, how to classify them." The character of leaf, flower, stem and fruit were clearly pointed out and the members eagerly inquired for help in drying and keeping the color for grasses and sought all the practical help possible. Dr. Grout's interest in mosses led to his speaking further of researches in that direction and at the next meeting he named and classified the grasses already gathered.

At the Museum of Natural History in New York City, Dr. Wissler lectured before the club on weaving. The art was traced from thread making to the production of the finest modern fabrics. He explained the development of the spindle whorl and the loom with heddles and shuttle. The lecture was very fully illustrated by specimens from the cases of the museum including also cords, braiding, matting, bark cloth and Siberian fur garments in which animal sinews were used in sewing instead of thread.

The exhibit held on the 13th and 14th of May 1904, included many loaned articles. There were grasses, sedges, rushes, and twigs, vines, etc., gathered by members and exemplifying materials which had been used in basketry or weaving, from schools or private individuals, complete exhibits of the commercial fibres, cotton, flax, hemp, jute and wool were presented in different stages from plant to loom.

There were fine specimens of intricate plaiting in palm and fibres from the Pacific Islands and South America. Baskets from almost every quarter of the globe, like the old Nantucket sign which read, "blue quart bowls, all colors and sizes, 9 pence apiece, and various prices." Peasant pottery from Europe and America, and clay modeling with metal work from students of the Pratt Institute High School and a bronze scone by Miss Kimball. There were a few specimens of old colonial weaving, while embroidery showed the skilled work of long ago beside the modern Swedish cut linen and the homespun from Berea College. Several interesting experiments were shown in different looms for weaving and batticks from the New York Guild of Arts combined most exquisite colors. Childrens' work from several schools showed as much skill often as their teachers'. A table for members' experiments included symbolism in design as well as new materials: leather, wood, bric-a-brac, roots, bittersweet, grape-vines, ground pine, stems and flowers of the immortelle, sensitive fern, black-berry shoots, Japanese iris leaves, lemon lily, sea-weeds, and mosses proved the enthusiasm of venturesome workers. Several beautiful fibers from the far East had been attractively dyed and deftly woven. Soft colors in the dyed raffia suggested to Miss Mary White a design for pink and brown moths on a very fine twined basket. To another worker the silvery wisteria fiber and dull brown and deep green raffia led to a combination named a "pine barren basket from New Jersey."

It has proved indeed well worth lingering in these primitive stages of the Industrial art world to appreciate how much has

been done by careful training among the so-called backward nations, as well as to discover how clumsy many a skilled worker may be in seeking to express thought or feeling in the very simplest language. For the summer the club has scattered seeking new adventures, trusting in the fall to welcome a larger number of those, who are in this broad land seeking the same ends. Enquiries may be addressed to Miss E. M. Griswold, 221, Washington avenue, or to Miss Eppendorff, 193 Adelphi street, Brooklyn, N. Y.

SHOP NOTE

We have received a fine new edition of Mrs. C. C. Filkins' catalogue which she is now mailing to her customers.

ANSWERS TO CORRESPONDENTS.

This column is only for subscribers whose names appear upon our list. Please do not send stamped envelopes for reply. The editors can answer questions only in this column.

All questions to be answered in the Magazine must be received before the 10th day of the month preceding issue.

G. K.—Ramikins are small round dishes used for cooking entrées or side dishes—such as lobster a la Newburgh, chicken patties, etc., etc.—the best style of decoration would be a simple border of gold or gold and color.

Mrs. G. A. S.—A good medium for powder colors is made of oil of cloves one part to six parts of oil of copaiba.

A. L.—To etch a design on china the design is first carefully drawn in India ink, then the plate is heated and melted wax is poured over the surface, letting the surplus run off, leaving a thin coat, through which the design can be seen, when the plate is cold the design is gone over with a steel tracer where the glaze is to be eaten away. When the wax is thus removed from the parts to be etched the pure hydrofluoric acid is poured over the design and allowed to remain until it has eaten into the glaze sufficiently, as well as can be judged; hold under running water until thoroughly cleansed, then remove the wax—if some parts are found to be insufficiently etched, the process must be repeated. Avoid breathing the fumes and do not allow the acid to touch the skin as the effect is very injurious.

A. McG.—It does not seem as if either of the vases you illustrate would be very appropriately decorated with the figures. The three-handled one should have some design running vertically and treated with a dark effect, say a black lustre ground with a design in scarlet and green with black outlines, ruby over orange lustre for the scarlet, with light and dark green lustre—say a conventional poppy design with the blossoms coming on the two full curves. The other, rather gourd shaped vase might have the upper part a deep grey blue fading into white clouds at the base with a flight of white birds circling the larger circumference, this would give somewhat the effect of Royal Copenhagen.

Mrs. A. W.—We do not know the green to which you refer, but would rather think the Royal Green in powder would be the nearest to it, it could be darkened by adding Banding Blue or yellowed by adding Albert Yellow or Yellow Brown, according to the desired tone. If your rose is brick red, it has been underfired, even when heavily put on it will not remain that color if sufficiently fired, though it might blister. Carnations always fade more or less in firing—the iron colors are quite inclined to grey especially if touching flues, or paint a little more heavily than you wish the color to be. Overglaze colors are all makes of colors painted on over the glaze—such for instance as you are at present using. In painting naturalistic flowers, etc., it is always best to have a prominent mass and the balance of the painting subordinate and shadowy. If you fire your oil kiln right the chimney never needs cleaning, no more oil should be used than will be consumed in the burner—if smoke comes from your chimney you are using too much oil.

China can not be overfired in an amateur kiln—the colors however fade if fired too hard. China can be readily repaired in an ordinary kiln; it should first be cemented with a cement specially prepared for this purpose, then tied with asbestos cord to prevent it slipping apart in the firing. We will soon give a colored supplement of grapes with treatment for the various kinds by Mrs. Safford. For nasturtiums use Albert Yellow, Yellow Brown, Yellow Red, Pompadour or any of the red or yellow colors. The KERAMIC STUDIO has two studies of these flowers with treatments.

Mrs. C. A. B.—Give your morning glories a wash of Banding Blue over the ruby to make a purple tone. There is no way of which we know to lighten greens when fired too dark, except mixing a little white enamel with green to retouch—this must be done carefully.

The Revelation Kilns

H. J. CAULKINS

M. C. PERRY

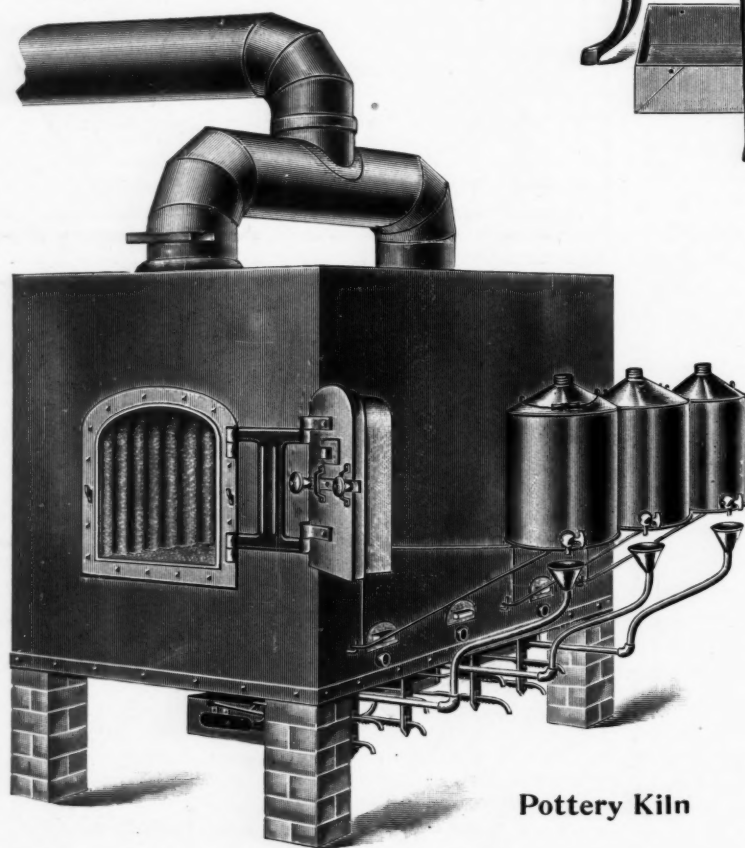
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